

REMARKS

Claims 1-11 were examined. Claims 1, 4-7 and 10 are amended. Claims 1-11 remain in the application.

The Patent Office objects to claims 5 and 11. The Patent Office rejects claims 1-2, 4-7, 9 and 11 under 35 U.S.C. §102(b). The Patent Office rejects claims 3, 8 and 10 under 35 U.S.C. §103(a). Reconsideration of the pending claims is respectfully requested in view of the above amendments and the following remarks.

A. Claim Objections

The Patent Office objects to claim 5 for certain informalities. Claim 5 is amended and addresses the concerns raised by the Examiner.

The Patent Office objects to claim 11 under 37 CFR §1.75 as being a duplicate of claim 3. Applicants are unsure of this rejection as claims 11 and 3 appear quite different. Claim 10 is amended to depend from claim 7 rather than claim 2 and assuming the Patent Office meant claim 10 rather than claim 11, the objection under 37 CFR §1.75 is addressed.

Applicants respectfully request the Patent Office withdraw the objection to the claims.

B. 35 U.S.C. §102(b): Rejection of Claims 1-2, 4-7, 9 & 11

The Patent Office rejects claims 1-2, 4-7, 9 and 11 under 35 U.S.C. §102(b) as anticipated by U.S. Patent No. 6,388,333 of Taniguchi et al. (Taniguchi).

Independent claim 1 describes an apparatus including a first support substrate, a chip, a plurality of fusible masses coupled to contacts on the support substrate, an electrically-insulated encapsulant, and a second substrate. The encapsulant is disposed between and contacts the first support substrate and the second substrate. Support for the disposition between and contacting the substrate may be found in the Application, for example, at page 8, paragraph 0041.

Independent claim 1 is not anticipated by Taniguchi, because Taniguchi does not describe an encapsulant disposed between and contacting two substrates. Taniguchi describes solder balls 7 spacing substrates 9 from one another.

Claims 2 and 4-6 depend from claim 1 and therefore contain all the limitations of that claim. For at least the reason stated with respect to claim 1, claims 2 and 4-6 are not anticipated by Taniguchi.

Independent claim 7 describes an apparatus including a first support substrate, a second support substrate and an encapsulant disposed between and contacting the first support substrate and the second support substrate. As noted above, Taniguchi does not teach an encapsulant disposed between and contacting two substrates.

Claims 9 and 11 depend from claim 7 and therefore contain all the limitations of that claim. For at least the reasons stated with respect to claim 7, claims 9 and 11 are not anticipated by Taniguchi.

Applicants respectfully request that the Patent Office withdraw the rejection to claims 1-2, 4-7 and 9-11 under 35 U.S.C. §102(b).

C. 35 U.S.C. §103(a): Rejection of Claims 3 & 10

The Patent Office rejects claims 3 and 10 under 35 U.S.C. §103(a) as obvious over Taniguchi in view of U.S. Patent No. 5,844,315 of Melton et al. (Melton). Melton is cited for teaching an encapsulant encapsulating a portion of respective ones of a plurality of fusible masses.

Claims 3 and 10 are not obvious over the cited references, because each of claims 3 and 10 describes an apparatus in which an encapsulant is disposed between and contacts a first substrate and a second substrate. Claims 3 and 10 are not obvious because the cited references neither describe nor provide any motivation for disposing an encapsulant between substrates that contacts the substrates. Accordingly, Applicants respectfully request the Patent Office withdraw the rejection to claims 3 and 10 under 35 U.S.C. §103(a).

D. 35 U.S.C. §103(a): Rejection of Claim 8

The Patent Office rejects claim 8 under 35 U.S.C. §103(a) as obvious over Taniguchi in view of U.S. Patent No. 4,695,872 of Chatterjee (Chatterjee). Chatterjee is cited for teaching a microprocessor on one substrate and a memory on another substrate.

Claim 8 is not obvious over the cited references, because the cited references neither describe or provide any motivation for an encapsulant disposed between and contacting a first substrate and a second substrate. Applicants respectfully request the Patent Office withdraw the rejection of claim 8 under 35 U.S.C. §103(a).

CONCLUSION

In view of the foregoing, it is believed that all claims now pending, namely claims 1-11, are patentably define the subject invention over the prior art of record, and are in condition for allowance and such action is earnestly solicited at the earliest possible date. If the Examiner believes that a telephone conference would be useful in moving the application forward to allowance, the Examiner is encouraged to contact the undersigned at (310) 207 3800.

If necessary, the Commissioner is hereby authorized in this, concurrent and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2666 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17, particularly, extension of time fees.

Respectfully submitted,

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Date: 1/3/05

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I hereby certify that this correspondence is being deposited with the United States Postal Service on the date shown below with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Nedy Calderon

Date